STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the matter of approving a new air contaminant source for Black Rock Inc.	**)**	**Proposed Decision Regarding Notice of Construction Order No. 10AQ-C153**

TO: Charles Maikish
Black Rock Inc.
55 E 52nd Street
New York, NY 10055

Black Rock Inc., proposes to install and operate three 2,500 kilowatts-electric (kWe) diesel fueled electric generators in the northern portion of Intergate Columbia Building B. The Data Center will be surrounded by the existing VMware Data Center to the south and the proposed Sabey Data Center to the north. The Black Rock Data Center will be used as an electronic data storage facility. The generators will be used to provide standby electrical power to the data center. (Note that each engine-generator set is considered to be a single emission unit and in combination may be referred to herein as either "engine" or "generator".)

A Second Tier Toxics analysis, as allowed by WAC 173-460-090, for Diesel Engine Exhaust, Particulate, was completed on October 5, 2010.

The Black Rock Data Center is located along Grant Road, outside of East Wenatchee, within the SE ¼ of the SW ¼ of Section 10, Township 22 North, Range 21 East, Willamette Meridian, Douglas County, Washington.

In relation to the above, the State of Washington Department of Ecology (Ecology), pursuant to Revised Code of Washington (RCW) 70.94.152, makes the following determinations regarding the project:

1. It qualifies as a new source of air contaminants under Washington Administrative Code (WAC) 173-400-110, May 20, 2009, and a new source of toxic air pollutants under WAC 173-460-040, May 20, 2009.

2. It will be located in an area which is in attainment or unclassifiable for all criteria pollutants.

3. Allowable emissions will not delay the attainment date for an area not in attainment nor cause or contribute to a violation of any ambient air quality standard.

4. It will comply with all applicable new source performance standards, national emission standards for hazardous air pollutants, national emission standards for hazardous air pollutants for source categories and emission standards adopted under chapter 70.94 RCW.

5. It will employ Best Available Control Technology or Best Available Control Technology for Toxics, for all pollutants emitted.

6. It is not a major stationary source or major modification subject to the Prevention of Significant Deterioration permitting requirements of WACs 173-400-700 through 173-400-750.

THEREFORE, it is ordered that the source, as described in said Notice of Construction Order and more specifically detailed in plans, specification and other information submitted to the Department of Ecology in reference thereto, is approved for construction, installation and operation, provided the following conditions are met:

APPROVAL CONDITIONS

1 Laws and Regulations

The source will comply with all state laws and regulations, including:

- Chapter 70.94 RCW, Washington Clean Air Act.
- Chapter 173-400 WAC, General Regulations for Air Pollution Sources.
- Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants.

The source will comply with all federal laws and regulations, including:

- Title 40 Part 60 Code of Federal Regulations (CFR) Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

- Title 40 Part 63 CFR Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

2 Emission Limits

2.1 This source shall not exceed the following potential-to-emit of the specified air contaminants:

Pollutant	**Emissions**	
Nitrogen Oxides (NO_x)	2.83	tons per year
Carbon Monoxide (CO)	1.62	tons per year
Sulfur Dioxide (SO_2)	0.00298	tons per year
Particulate Matter (PM_{10})	0.0924	tons per year
PM2.5	0.0924	tons per year
Volatile Organic Compounds (VOC)	0.130	tons per year
Toxic Air Pollutants		
1,3-Butadiene	0.0000380	tons per year
Acetaldehyde	0.0000490	tons per year
Acrolein	0.0000153	tons per year
Benzene	0.00151	tons per year
Benzo(a)anthracene	0.00000121	tons per year
Benzo(a)Pyrene	0.000000250	tons per year
Benzo(b)fluoranthene	0.00000216	tons per year
Benzo(k)fluoranthene	0.000000212	tons per year
Chrysene	0.00000298	tons per year
Dibenz(a,h)anthracene	0.000000337	tons per year

Pollutant	Emissions	
Diesel Engine Exhaust, Particulate	0.0924	tons per year
Formaldehyde	0.000153	tons per year
Indeno(1,2,3-cd)pyrene	0.000000403	tons per year
Nitrogen Dioxide (NO2)	0.283	tons per year
Toluene	0.000547	tons per year
Xylenes	0.000375	tons per year

2.2 NO_x + Non Methane Organic Compound (NMOC) emissions from each engine shall not exceed 6.4 grams per kilowatt-hour (g/kWm-hr).

2.3 CO emissions from each engine shall not exceed 3.5 g/kWm-hr.

2.4 PM emissions from each engine shall not exceed 0.20 g/kWm-hr.

2.5 Visual emissions from each exhaust stack shall be no more than 5 percent, with the exception of a ten minute period after unit start-up. Visual emissions shall be measured by using the procedures contained in 40 CFR 60, Appendix A, Method 9.

3 Equipment Restrictions

3.1 This source is limited to the installation and operation of three 2,500 kWe Caterpillar diesel-fired generators. Replacement of failed engines with like engines (same manufacturer and model family; Caterpillar 3516 C) or equivalent engines requires notification prior to installation.

3.2 All engines used to power the generators shall be certified to conform with 40 CFR Tier 2, or better, standards for non-road engines.

3.2 Each engine is limited to 48 hours per 12-month period of power outage operation. Operation of the three engines combined is limited to 231 hours per 12-month period. (Note: Each generator will be operated approximately eleven hours per year of scheduled monthly diagnostic testing at 50% of its rated design load, four hours per year of annual load testing at 100% of its rated design load, 12 hours per year for transformer maintenance at 67% of its rated design load, and two hours per year, every three years, for main switchgear maintenance at 67% of its rated design load.)

3.3 Each exhaust stack shall vent vertically without obstruction, at a minimum height of 44.2 feet above the ground level at the base of the engine.

3.4 Engines shall be fired exclusively with fuel oil that meets specifications of ultra-low sulfur No. 2 distillate fuel oil (less than 0.0015 weight percent sulfur).

3.5 The engines shall be operated only for testing, maintenance, and during periods of line power unavailability. In no circumstance shall the generator provide power to the grid or to an entity.

4 General Testing and Maintenance Requirements

4.1 Permittee will follow manufacturer recommended diagnostic testing and maintenance procedures to ensure that this engine will operate with minimal emissions throughout the life of the emergency generator.

4.2 During diagnostic testing, load testing, transformer maintenance and main switchgear maintenance, only one generator, associated with Intergate Columbia Building B, shall be operated at any one time.

4.3 Each engine generator shall be equipped with a properly installed and maintained non-resettable hours meter.

4.4 No regularly scheduled stack sampling is required by this Approval Order. Ecology may require stack testing in the future in accordance with WAC-173-400-105(4).

5 Operation and Maintenance Manual

A site-specific O&M manual for the emergency generation equipment shall be developed and followed. Manufacturers' operating instructions and design specifications for the engine, generator, and associated equipment shall be included in the manual. The O&M manual shall be updated to reflect any modifications of the equipment or its operating procedures. Emissions that result from failure to follow the operating procedures contained in the O&M manual or manufacturer's operating instructions may be considered proof that the equipment was not properly installed, operated, and/or maintained. The O&M manual for the diesel electric generation units and associated equipment shall at a minimum include:

5.1 Manufacturer testing and maintenance procedures that will ensure that the engine will conform to the Title 40 CFR 89 emission limits throughout the useful life of the engine.

5.2 Normal operating parameters and design specifications.

5.3 Operating maintenance schedule.

6 Recordkeeping

All records, Operations and Maintenance Manual, and procedures developed under this Order shall be organized in a readily accessible manner and cover a minimum of the most recent 60-month period. The following records are required to be collected and maintained:

6.1 Fuel receipts with sulfur content for each delivery to the facility.

6.2 Annual hours of operation for the each standby generator, including reason for its operation.

6.3 Upset condition log for the engine and generator that includes date, time, duration of upset, cause, and corrective action.

7 Reporting

7.1 Periodic emissions inventory and other information may be requested by Ecology. Information will be submitted within 30 days of receiving the request, unless otherwise specified.

7.2 Written notification that the O&M manual has been developed and completed shall be submitted within 60 days after the issuance of this Order.

7.3 Permittee will provide written notice within 10 days of initial startup of each generator. Notice will contain the serial number of each engine and generator, the engine guild date, and the first date of on-site operation.

8 General Conditions

8.1 **Discontinuing Operations:** It shall be grounds for rescission of this approval if physical operation is discontinued for a period of eighteen (18) months or more. Ecology may extend the 18-month period upon a satisfactory showing that an extension is justified.

8.2 **Compliance Assurance Access:** Access to the source by representatives of Ecology or the EPA shall be permitted upon request. Failure to allow such access is grounds for enforcement action under the federal Clean Air Act or the Washington State Clean Air Act, and may result in revocation of this Approval Order.

8.3 **Availability of Order and O&M Manual:** Legible copies of this Order and the O&M manual shall be available to employees in direct operation of the diesel electric generation equipment, and be available for review upon request by Ecology.

8.4 **Equipment Operation:** Operation of the emergency generator and related equipment shall be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with the O&M manual, unless otherwise approved in writing by Ecology.

8.5 **Modifications:** Any modification to the generator, or engine and related equipment's operating or maintenance procedures, contrary to information in the NOC application, shall be reported to Ecology at least 60 days before such modification. Such modification may require a new or amended NOC Approval Order.

8.6 **Activities Inconsistent with the NOC Application and this Approval Order:** Any activity undertaken by the permittee or others, in a manner that is inconsistent with the NOC application and this determination, shall be subject to Ecology enforcement under applicable regulations.

8.7 **Obligations under Other Laws or Regulations:** Nothing in this Approval Order shall be construed to relieve the permittee of its obligations under any local, state or federal laws or regulations.

Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to the following:

a. Violation of any terms or conditions of this authorization;

b. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant fact.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of their circumstances, and the reminder of this authorization, shall not be affected thereby.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503 **Pollution Control Hearings Board** 4224 – 6th Avenue SE Rowe Six, Building 2 Lacey, WA 98503 *Note: The PCHB is moving their office. To serve appeals at the correct street address, please visit their web site at www.eho.gov for the exact move date.*	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608 **Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

DATED at Yakima, Washington, this [day] Day of [month], 2010.

Reviewed by:
___DRAFT_____
Lynnette A. Haller, PE
Air Quality Program
State of Washington
Department of Ecology

Approved by:
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